

1      Search of Ways to Improve the Efficiency of the Diagnostic  
2      Results and the Quality of Treatment of Dystrophy and Vulva  
3      Cancer

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9      **Abstract**

10     With vulvar dysplasia, sclerotic deprive and suspected cancer under our observation there  
11     were respectively 115 and 97 patients. The effectiveness of treatment of vulva dystrophy (VIN  
12     II-III degree) by the method of photodynamic therapy (PDT) 45.8=4.7

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14     **Index terms**— vulvar cancer, PDT, cryoapplication, apparatus  
15     Search of Ways to Improve the Efficiency of the Diagnostic Results and the Quality of Treatment of Dystrophy  
16     and Vulva Cancer suspected cancer under our observation there were respectively 115 and 97 patients. The  
17     effectiveness of treatment of vulva dystrophy (VIN II-III degree) by the method of photodynamic therapy  
18     (PDT) 45.8=4.7%. However, dysplasia II -III degree, sclerotic changes with the formation of pronounced  
19     horn scales prevents the full PDF and recurrence of the disease. Therefore, the treatment of choice is surgical  
20     treatment with a reconstructive plastic. In order to reduce bleeding and antiblastic we used krioapplikatsiya,  
21     apparatus "Harmonics", and the decay of tumor angiographic chemoembolization before surgery. The use of  
22     new reconstructive plastic surgery, including with the use of abdominal skin and fascial flap combined with  
23     vascularized lower segments of the rectus muscles (patent for invention ? 2580665 from 11.11.14), have helped to  
24     reduce complications, improve cosmetic effect and reduce the duration of lymphorrhea in 2-3 days.

25      **1 Introduction**

26     cancer of the external genitals is up to 8 % in the overall structure of the incidence of malignant neoplasms of  
27     female genital organs, relapses that occur within the first 5 years to 60 %. [1]. Vulva cancer (CV) is mainly  
28     detected in elderly menopausal women. Unfortunately, it is increasingly common at a younger age, associated  
29     with the increasing threat of papillomavirus infection [2]. And this is a reality that we have to reckon with.  
30     Features of development, multicentricity, and often diffusivity of the lesion against the background of diffuse  
31     dysplastic changes and sclerotic lichen or papillomatosis create certain difficulties in the early stages of diagnosis  
32     [8]. Given the above, we used the technique of scraping with a scalpel consisting of two stages: 1) removal  
33     (scraping) Horny scales of the epithelium of the 4-5 most suspicious areas; 2) scarification and obtaining cells  
34     from deep layers within the basal layer before the appearance of "dews" blood. Cytological examination of  
35     vulvar dysplasia allowed at  $76.0 \pm 3.4\%$  of cases to establish a correct diagnosis, including 13 cases against this  
36     background, the identified cancer (0-1 stages, which is significantly higher than the cumulative literature data  
37     (up to 57%) [3]. The study of methods of reconstructive plastic surgery (RPO) with a skin-fascial flap from the  
38     posterior thigh was started in the 80s years last century by Knapstein P. G [9].

39     The possibilities of treatment of vulvar dysplasia and cancer are contradictory.

## 5 MATERIAL AND METHODS

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### 40 2 II.

### 41 3 Aim

42 Assessment and the role of the VDT and the search of ways of increase of efficiency of diagnostics and surgical  
43 procedures in complex therapy of vulvar dystrophies and vulvar cancer.

### 44 4 III.

### 45 5 Material and Methods

46 With vulvar dysplasia and sclerotic lichen under our supervision were 115 patients aged 46 to 82 years and 9  
47 patients in combination with carcinoma in situ and RV 1-II stages. Mean age  $55 \pm 3.6\%$ . PDT was performed  
48 in 43 patients with diffuse vulvar dysplasia, incl. (VIN I -27, VIN II -16) and in RV in order to prepare the  
49 surrounding tissues (in the transition of sclerotic changes) on the skin of inguinal masonry and inner thighs),  
50 incl. in 2 patients with relapse of CV. In our study we used a second generation sensitizer -photoditazine. PDT  
51 session was performed 1.5-2 hours after intravenous drip infusion of the drug (VETA-Grand LLC) at the rate of  
52 an average of 1.0 mg/kg body weight in 100 ml of 0.9% sodium chloride solution in a semi-darkened room. Laser  
53 irradiation using semiconductor device "?tkus -2" with energy density of 80-250 j/cm<sup>2</sup> and exposure time from  
54 10 to 30 min. PDT allowed to cure VIN I in 21(77.7=2.2%) and only in 2 of 16 (12.5=0.5%) women with VIN  
55 II degree.

56 However, after 5 years, the resumption of skin itching and residual focal leukoplakia were noted in 5 women,  
57 which is associated with insufficient exposure to laser exposure to each zone, in the presence of pronounced Horny  
58 scales. In addition, PDT by moving the laser beam by hand does not avoid subjectivity, and means of disease  
59 recurrence.

60 5-year relapse-free survival was found in 16 of 27 ( $59.2 \pm 3.6\%$ ) women with predominantly VIN I. In situations  
61 with diffuse or transient II -III degree dysplasia behind the femoral fold, in our opinion, a combined approach is  
62 required in the choice of treatment depending on the prevalence of the process (PDT+ vulvectomy with RPO).  
63 As note themselves women after PDT was only a temporary subjective effect, after which itching resumed and  
64 they resorted to various popular their means. Plasty with full-fledged skin-fascial flaps with good vascularization  
65 from the posterior-medial surface of the thigh in 97 patients showed that it is pathogenic, since one of the main  
66 reasons for the development of VIN I-III is the sclerosis of local vessels and tissue atrophy. All patients underwent  
67 expanded vulvectomy and bilateral or unilateral inguinal-femoral lymph node dissection depending on the results  
68 of ultrasound and MRI.

69 Despite the obliteration of arterial vessels in the formation of tabloid dystrophy, due to anatomical features in  
70 the area of the vulva is not only preserved, but also expanded venous plexus with outflow through V. pudendi  
71 interna. In order to avoid dispersion and devitalization of the tumor cells (ablastic and antiblastic) Recently,  
72 the excision of the tumor in 37 women was preceded by cryoapplication and credibilitate to t -185° through the  
73 entire thickness of the tumor using the apparatus ERBE-6, exposure 5-10 min (Fig. ??). The data show that  
74 this approach is promising and does not affect healing. Surgical excision is almost without bloodshed on the  
75 part of the tumor. In the latter group, within 5 years, relapses occurred only in 3 patients ( $8.1 \pm 0.9\%$ ), which is  
76 significantly lower than in the literature. With the aim of forming the volume of the external genitalia, improve  
77 the appearance quality and reduce lymphorrhea recently we have developed a method rekonstruktivnoi plastics  
78 (Patent No. 2580665 [4]) of the external genitalia through the mobilization of abdominal skin and fascial flap  
79 and the lower segments of the rectus muscles along with a.epigastrica inferior (Fig. ?? a, b, c and d) using the  
80 apparatus "Harmonics". Closure of the wound was carried out at the beginning cross mobilized segments of  
81 direct muscles of a stomach on the vascular pedicle. The latter create the missing volume of the labia majora  
82 and represent a unique plastic material for vascularization and lymph drainage. In the area of the intersection of  
83 muscles and ends of the segment, fixation to the muscles of the vagina was performed by dissolving seams so that  
84 they did not hang over the mouth of the urethra and did not close the symphysis of the pubis. The next stage  
85 was sutured fascia of the rectus muscles of the abdominal wall. Then, 6-7 stitches were applied along the Donati  
86 to the skin of the perineum and the back wall of the vagina without tension in order to determine to what level  
87 the skin defect will be filled with an abdominal skin-fascial flap without tension.

88 Abdominal skin-fascial flap was placed on the wound surface, adapting it by cutting off excess and sharp skin  
89 areas, sutures were applied. Determining the projection of the abdominal flap, adjacent to the pubis, imposes  
90 two provisory internal anchor sutures to the periosteum, which is then stitched to the abdominal flap (without  
91 skin), genital forming a fold. Then through a separate puncture of the abdominal flap in the inguinal areas has  
92 introduced an active drainage in the inguinalfemoral area. Then every 0.8 cm for the tightness of stitches on the  
93 skin and the vaginal mucosa around the entire circumference and nodal skin sutures for Donati.

94 The operations were performed in 12 women, mostly aged 45-55 years with abdominal obesity. The process  
95 was localized on the skin and mucous membrane of the anterior half of the vulva. In one case, focal leukoplakia  
96 was an independent disease, in another case, an initial cancer was diagnosed. Healing took place by primary  
97 tension, except for 1 woman ( $8.3 \pm 1.4\%$ ) with obesity and type II diabetes mellitus. An important aspect of  
98 reconstructive vulvectomy by abdominal flap in combination with segments of straight muscles on the vascular

99 pedicle was a decrease in the duration of lymphorhea for 2-3 days and the formation of the appearance of the  
100 organ.  
101 IV.

## 102 **6 Discussion and Conclusions**

103 As a result of the work carried out, mortality from ?V ( Fig. ??), despite the increase in morbidity, since 2005,  
104 when plastic surgery was introduced and modern approaches to tumor devitalization decreased by 6.2 times.

105 Fig. ??: Morbidity and mortality from cancer of the vulva (100 000 female population) in Novgorod region.  
106 Thus, further ways to improve the results of treatment lie, on the one hand, on the application and improvement  
107 of modern technologies, in particular PDT, cryodevitalization, apparatus "Harmonics" and reconstructive plastic  
108 surgery, and on the other, to improve cancer literacy of the population and General practitioners.

109 The use of reconstructive plastic operations in particular with the use of vascularized lower the segments of  
110 the rectus abdominis muscle is an individual method choice in young women with cancer of the vulva and vulgar  
111 dystrophy (VIN II-III), a measure of prevention of invasive forms cancer, helps to reduce complications, increase  
112 cosmetic effect and reduce the duration of lymphorrhea on average for 3-4 days.

113 Requires further study of the possibilities of the use of angiohemoembolization in neoadjuvant mode.

## 114 **7 Literature**



Figure 1: Fig. 1 :



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Figure 2: Fig. 2 :



Figure 3:



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Figure 4: Fig. 3 :Fig. 4 :Fig. 5 :

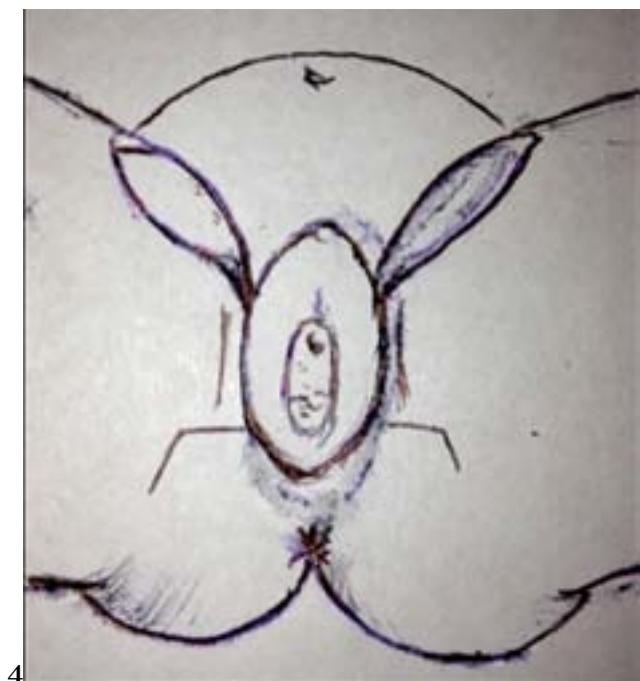


Figure 5: 4

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